



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO.       |
|---|-------------|----------------------|---------------------------|------------------------|
| 09/954,715  | 09/12/2001  | Ping-Sheng Tseng     | VD/017C10                 | 8847                   |
| 54698 7590 04/11/2007<br>RAYMOND R. MOSER JR., ESQ.<br>MOSER IP LAW GROUP<br>1040 BROAD STREET<br>2ND FLOOR<br>SHREWSBURY, NJ 07702 |             |                      | EXAMINER<br>SAXENA, AKASH |                        |
|   |             |                      | ART UNIT<br>2128          | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>04/11/2007   | DELIVERY MODE<br>PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

09/954,715

Applicant(s)

TSENG ET AL.

Examiner

Akash Saxena

Art Unit

2128

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 27 March 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-50.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because:

Regarding Objection to claim 9: Examiner withdraws the claim objection in view of applicant's arguments.

Regarding Rejection to claims 1-6, 19-36, 38 and 44-46:

Argument 1 and response: Applicant agrees that hardware/software co-simulation generally involves sharing of information between the hardware and software, however the co-simulation does not teach sharing at least one the internal state of the hardware model stored on the shared memory. Examiner has provided evidentiary documents (US Patents: 6052524 & 5546562) to show that sharing information also involves sharing internal states which is essential for co-simulation. Examiner finds the applicant's argument unpersuasive.

Argument 2 and response: Applicant argues that apparatus claim recites a physical memory, however the Klein while "reciting a single coherent view of memory" is disclosing abstract memory. Examiner respectfully disagrees with applicant that Klein teaches only an abstract memory (See title of "Method and apparatus for optimizing hardware and software co-simulation"). Secondly Klein teaches the limitation in that shared memory to hold both hardware and software models (Fig.1 Eleemt 34 & 38).


Argument 3 and response: Applicant has argued that no permissible interpretation of claim 1 renders the shared memory part of the design being co-simulated. Applicant is arguing a limitation that is not present in the claim. The limitation present in the claim require the shared memory to hold software model and hardware model, which as present in Klein as disclosed (Fig.1 Eleemt 34 & 38).

Argument 4 and response: Applicant is arguing that Klein teaches a complete software simulation that does not employ an emulator. Applicant is performing piecemeal analysis of the combination of Bhandari and Klein. Bhandari teaches reconfigurable hardware and hardware models (Bhandari: Col.2 line 64-67) download thereon. Both Klein and Bhandari teaches hardware/software co-simulation where Klein further details a shared memory having both hardware and software models (Klein: Fig.1). Thus the combination as a whole teaches the limitations of the claim. Examiner finds applicant's arguments unpersuasive. The dependent claims remain rejected based on their dependency on rejected independent claims.

Applicant in general seem to arguing limitations which are not present in the claim, therefore the rejections are maintained by the examiner.

No new arguments are presented in claims 7 & 10, 8-9 and 11-18, 37, and 39-43 and 47-50 and they remain rejected as previously presented.

Akash Saxena  
AU 2128

  
FRED FERRIS  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2100